

## SECTION I

### STANDARD PROCEDURE SUMMARY

#### GENERAL

The present policies and procedures for the planning and design of water and wastewater facilities are furnished in an effort to avoid delays, improve uniformity and secure adequate plans so that water and wastewater facilities will be planned and constructed as economically as feasible to meet present and future requirements.

These policies and procedures are applicable to engineering planning and design work performed by the Water Department, Engineering Department, and by engineering firms engaged by the City or by private interests. These policies and procedures are guides to be followed and deviations normally will not be acceptable except following discussion and approval by the Water Department. Changes in these policies and procedures will be made and distributed from time to time to meet changing materials, methods, and needs.

A conference between the City's (Water and/or Engineering Department) Engineering Staff and the Consulting Engineer to discuss any special problems related to the project is desirable before the engineer begins preliminary design.

A flow chart for Developer Project Approval is presented in Exhibit 1.

#### PROJECT PROCESS

1. Water and Wastewater Study Report :

This Report is a comprehensive study of the development and the surrounding properties in order to evaluate the adequacy of the planned water and wastewater facilities for present and future needs.

Water Comprehensive Study: A complete hydraulic analysis on water distribution system will be necessary to determine the sizes of water mains required to furnish adequate water service for both immediate and ultimate developments.

Wastewater Comprehensive Study: A study of the drainage area will be required for wastewater projects. The size of the drainage area will determine the amount of information needed in the study report for the project.

The engineer is expected to make a field survey to verify the location of existing manholes, flow lines, and gate valves, from which extensions are to be made.

The study in the form of an Engineering Report shall include the following items as a minimum:

- A. Purpose and Scope
- B. Design Criteria
- C. Method of Analysis
- D. Results and Conclusions
- E. Supporting data and Calculations.

Three copies of this report should be submitted to the Water Department and Engineering Department either before or along with the preliminary design.

Appendix A and B presents the General and Minimum requirements for developer's projects to get building permit or plat released for projects.

## 2. Preliminary Layout Review

Two copies of the preliminary layouts plans including the water and/or wastewater system layout, will be submitted by the Engineer to the Water Engineering Services Division for review. This submittal will consist of a plat, the proposed water and/or wastewater system layout, and the profile of the wastewater mains (as obtained from the design criteria of Section III and IV), and a copy of all design calculations.

The preliminary design plans will include the following:

- A. The general configuration of the water and/or wastewater main layout and their conformance to the overall plan of the area.
- B. Fire hydrant and valve coverage.
- C. Adequate sizing of water and/or wastewater mains for present and future requirements of the immediate and adjacent area.
- D. The Engineering Department Project Manager or the Water Department Development Engineer and the Engineer during the review of the preliminary plans may make a field inspection survey on site.
- E. Identification of right-of-way, easements and right-of-entry requirements.
- F. Adequacy of isolation valves.

After the Water Department has completed the review of the preliminary layout, one copy will be returned to the Engineer with review comments, and the project plans and specifications can be prepared.

The comprehensive study and the preliminary layout can be submitted together.

## 3. Preliminary Design Plans and Review

At this time, two (2) sets of design plans and two (2) copies of the Special Contract Documents and Specifications will be submitted by the Engineer to the Engineering Department or Water Department. All design plans and specifications for the project will be reviewed for completeness and compliance with the design criteria, policies and procedures of the Water Department. Changes, deletions, and additions, when necessary, will be noted on the plans and specifications. After review, one (1) set of design plans and one (1) copy of the Special Contract Documents and Specifications will be returned to the Engineer, with errors, corrections, additions or deletions indicated in red (or other designated color). The Engineering Department or Water Department will retain the other set as a record copy. The returned set should be used for preparation of final plans.

Appendix C presents the Procedure for Expediting Review and Approval of Plans for Community Facilities.

4. Final Plans and Review

For the final review, two (2) sets of plans, two (2) sets of Special Contract Documents and Specifications, the original (reproducible) cover sheet, quantity take-off per sheet in a spreadsheet format and a copy of the project cost estimate shall be submitted by the Engineer. The “final” plans and specifications will be reviewed to determine if the plans and specifications are complete and all previous comments have been corrected or resolved.

For signature of the cover sheet, the Engineer should have all appropriate seals and signatures affixed to the plans and specifications. One (1) set with the original cover sheet will be circulated within the City for approval and signature by the appropriate departments. The signed original cover sheet will be returned to the Engineer with any final comments.

Pre-qualification requirements for contractors are presented in Appendix D.

5. Contract Award of Development Projects

Plans and Special Contract Documents and Specifications for all projects designed by Engineer shall be issued to prospective bidders through that consulting engineer’s office, and any information or clarification given to prospective bidders by the Engineer shall be furnished to all such prospective bidders in the form of an approved official addenda.

The City (Engineering Department) will supply the Engineer with the General Conditions for Developer Projects, to be used in preparation of the Contract Documents. The Engineer is responsible for supplying the contractor with adequate number of plans and specifications.

Within ten (10) days after notification of contract award by the City, the Engineer shall submit the original drawings or reproducible drawings to the Engineering Department.

A. City Awarded Developer Projects.

The developer may elect for the City (Water Department) to award the Contract. After getting approval in writing from the Director of the Engineering Department, the project becomes the responsibility of the City upon approval of the final plans and specifications and after the developer has provided an executed formal (or informal) community facilities agreement. In addition, the developer must have submitted all appropriate fees, developer's share of construction cost and sureties. The engineer will still provide the required number of final plans and specifications at the time the project is bid.

B. Developer Awarded Projects with City Cost Participation

(1) The engineer shall furnish the Engineering Department a memo setting forth the date and time bids are to be received and opened. The location must be at City Hall. If this time is found to be unacceptable to the Water Department or the Engineering Department, the engineer shall be notified and the time for the bid opening will be reset. **NOTE 1**

(2) On the date that the project is advertised for bids, the engineer shall deliver to the Engineering Department Office at least two (2) sets of final plans and two (2) sets of final specifications. The engineer shall also transmit one set of plans to each of the utilities, with a copy of the letter of transmittal being forwarded to the DOE Office.

(3) At least 48 hours prior to receipt of bids, the engineer shall furnish to the Engineering Department, a list of prospective bidders (this list may be added to with a telephone notification) to verify pre-qualification of bidders in accordance with the Water Department requirements. **NOTE 1**

(4) A City representative shall be present at the opening of the bids.

(5) After receipt and opening of bids, the engineer shall check the proposals for accuracy and completeness and shall prepare bid tabulation, a copy of which shall be sent to each bidder of the project. The engineer shall submit the following to the Engineering Department office:

- (a) One copy of the newspaper's affidavit of advertisement for bids certifying the said newspaper published such notice. The newspaper shall be the official newspaper of the City of Fort Worth (as designated by the City Council).
  - (b) Six (6) copies of the bid tabulation showing the bid proposals from all prospective bidders.(on City Format)
  - (c) Recommendation of award of contract by engineer, to the lowest responsive pre-qualified bidder.
  - (d) Breakdown of cost distribution of the project between the Developer and the City of Fort Worth per the Community Facilities Agreement (CFA).
- (6) If the Water Department concurs with the recommendation for award of the contract and after the Developer has provided an executed formal community facilities agreement (Appendix E), and provided all appropriate fees and sureties, the Engineering Department Office will issue such notification by letter (Confirmation of Award of Contract), which will become a work order (notice to proceed) after the stipulations in the letter are met.
- (7) If developer desires to proceed with construction prior to execution of the formal CFA, then an informal CFA must be executed.

**NOTE 1: Caution:** Failure to comply with Item a and c above shall result in no City representative being present at the bid opening, and consequently, the City will not participate in the cost of the project.

C. Developer Awarded Projects without City Cost Participation

The City will not participate in the bidding or negotiating process, except that the proposed contractor must be pre-qualified in accordance with Water Department requirements. After the contract is awarded, the engineer must submit a letter of recommendation for award of contract.

If the Water Department (Engineering Department) concurs with the recommendation for award of contract and after the Developer has provided an executed informal community facilities agreement (Appendix F), and provided all appropriate fees and sureties, the Engineering Department Office will issue such notification by letter (Confirmation of Award of Contract), which will become a work order (notice to proceed) after the stipulations in the letter are met.

D. Conformation of Award of Contract of Developer Awarded Projects

After the award of contract, the engineer shall submit, for the use of the City, the following number of final plans, specifications and additional layout sheets:

	Type of Project		
	Water & Wastewater	Water Only Project	Wastewater Only
Conformed Specs <sup>2</sup> .	5	5	5
Plans (full set) <sup>3</sup>	9	9	9
Water & Wastewater Layouts <sup>4</sup>	8		
Water Layouts <sup>4</sup>		6	
Wastewater Layouts <sup>4</sup>			5

**NOTE 2:** Shall consist of a signed contract (by contractor and developer), performance and payment bonds (if contract amount exceeds \$25,000) in the amount of the contract executed by a surety (acceptable to the City) in the name of the developer and the City covering the construction of the facilities, a maintenance bond in the amount of the contract executed by a surety (acceptable to the City) in the name of the developer and the City covering the constructed facilities against defects in materials/workmanship for one year after completion and acceptance, insurance certificates in amounts required by general conditions of the contract documents, executed easements as necessary, and completed bid document.

**NOTE 3:** Shall include signed cover sheet, layout sheets, plan and profile sheets, detail sheets, and recorded plat of development. Entire set of plans and contract documents shall be signed and sealed by Registered Professional Engineer in the State of Texas.

**NOTE 4:** In addition to plan sets provided. Layout shall include lot line locations, location of services (water and wastewater), manholes (wastewater), valves and vaults (water), fire hydrants (water), and other appropriate information.